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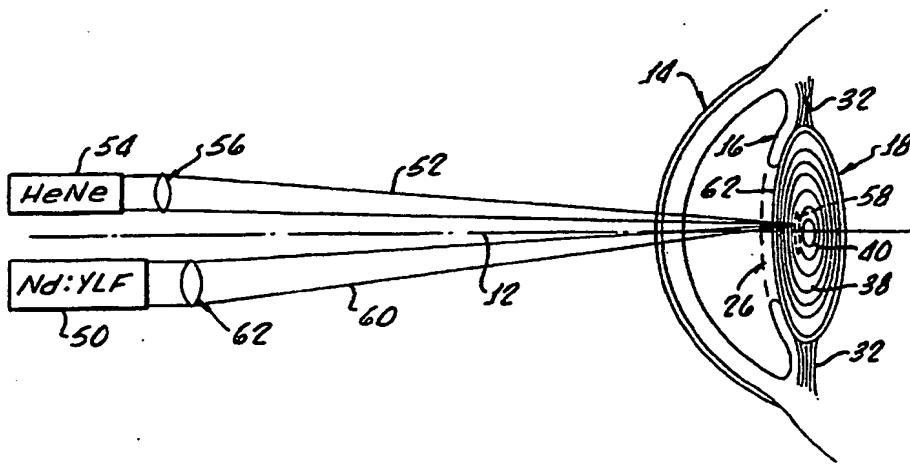
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(54) Title: METHOD OF LASER PHOTOABLATION OF LENTICULAR TISSUE



(57) Abstract

A method for the laser photoablation of ocular lens tissue comprises the steps of determining a volume of the lens tissue to be photoablated and directing a pulse, infrared laser beam at the volume with an amount of energy effective for photoablating the determined region without causing substantial damage to surrounding tissue regions. The laser beam is initially directed at a focal point at or below an anterior surface of the ocular lens and such focal point is moved towards or away from the ocular lens anterior surface in order to ablate the determined volume. The laser is preferably an Nd:YLF laser operating at a frequency of about 1053 nanometers and a pulse repetition rate of about 1000 Hertz with a pulse width of about 60 picoseconds. Each pulse has an energy of about 30 microjoules. The laser operates with a focused beam diameter of about 20 microns and operates with a "zone of effect" of no greater than about 50 microns. The method provides for the correction of myopia, hyperopia or presbyopia and enables the removal of incipient cataract.